

## The Overwintering of the Larva of *Apatura iris* L.

By H. G. SHORT\*

The purpose of the present note is to suggest that the larva of *A. iris* may sometimes leave the tree in the autumn and overwinter amongst the litter on the ground near the base of the tree. In view of the low population density of the species in England, confirmation of such a point by observation in the wild is extremely difficult and the suggestion arises as a result of experience with large numbers of the larvae in captivity over a period of 30 years.

Before such behaviour is dismissed as impossible, consideration should be given to the fact that it is the normal mode in the case of a large Japanese species, *Sasakia charonda* Hew. The latter is somewhat *Apatura*-like, both in the larval and imaginal stages, and the larvae are found in the winter amongst the dead leaves around the tree by Japanese collectors.

My *iris* larvae have been kept on *Salix caprea* bushes, 2-3 metres in height and in 8 or 10 in. flower pots, each pot standing in a plastic bowl and with its base surrounded by water to keep undesirable predators off the tree. The behaviour of the *iris* larvae appears to be the same whether the trees stand outdoors in a wire cage or in an unheated greenhouse.

The colour assumed by the *iris* larva in preparation for the winter usually falls into one of two groups, one dark grey in colour and the other a yellowish olive-green. Larvae of the latter colour usually overwinter against a bud on a twig and on leaving the leaf do not as a rule wander far before finding a suitable resting position. The grey larvae on the other hand often proceed down the tree right to ground level and then work their way upwards, exploring every irregularity in the bark until they find a position to their liking, usually at a fork between twigs or on the main trunk. Not only do these larvae reach ground level but it is not at all uncommon for them to leave the tree and wander about on the soil. Every year one or more larvae does this. Such excursions are often not more than one or two inches in length and the larva then returns to the trunk and ascends the tree to a normal position. Occasionally they reach the rim of the pot and I have had several instances of the larva overwintering successfully on a silk pad spun on the rim. In the spring it will change colour at the same time as the larvae on the tree, and on awakening will find its way back to the tree with no apparent difficulty. This, incidentally, disproves the assertion which has been made that the awakening of the larva in the spring is brought about by the "rising of the sap in the tree", as also does the fact that the larvae can be successfully overwintered on unrooted willow cuttings, provided that they are not kept too dry.

In the interest of hygiene the earth around the willow bushes in the pots is kept unnaturally clear of leaves, etc., and it is an interesting point whether a larva which wandered

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from the base of the tree would return before winter if a suitable resting place were available on the ground.

There is one other point in support of the hypothesis that the larva may winter on the ground. The leaf on which the larva has been in the habit of sitting is always spun to the twig with silk, and departure from the leaf in the autumn is always delayed until the last possible moment, quite often until the leaf has fallen away naturally from the stem and is only retained in position by the silk. In some cases the larva delays even longer and the leaf falls to the ground with the larva still in position at its tip. When this happens the larva does not appear to be at all concerned, and continues to sit in its usual position. I have never left such leaves lying around after they were discovered, for fear of the larva wandering away and being lost, but nor have I ever found such a fallen leaf from which the larva had wandered away. When the leaf is reattached to the tree by its stalk with a small piece of cotton, the behaviour of the larva depends upon the manner of attachment. If this is firm, so that the leaf cannot fall, the larva may stay in position right through the winter. If it is tied loosely, as if it were dangling by its silk attachment, the larva will leave the leaf for a normal overwintering position—usually within half an hour of being reattached.

I should be most interested to hear from any other entomologist who has found *iris* larvae in the wild during the winter at or near ground level—say within one foot.



#### LOZOPERA BEATRICELLA WALS. NEW TO THE LONDON AREA.

— On two occasions during the past season, 30.vi and 19.viii.76, I took single specimens of this very local Cochylid moth at the lighted window of my study here. I have never met with the foodplant (spotted hemlock, *Conium maculatum*) anywhere in the district, but only further east in the Thames marshes; however, it presumably does grow not far from here, for besides the above species another hemlock feeder, *Agonopterix (Depressaria s.l.) alstroemeriana* Clk., has twice come to the study light. *L. beatricella* is known from South Essex but the only Kent records appear to be for the eastern division: Folkestone Warren (Purdey) some time before 1914, and on the cliffs near Kingsgate, between Cliftonville and Broadstairs (H. C. Huggins), 1930 or 31. Mr. Huggins, to whom I am indebted for these records and other information, bred the species there from Alexanders (*Smyrniium olusatrum*)—a previously unrecorded foodplant—and published his find (reference not to hand). He knows of no others for the county. Even if mine is not actually the first capture in W. Kent, it is fairly surely the first in the London suburbs. — A. A. ALLEN, 49 Montcalm Road, Charlton, London, SE7 8QG. [The late Mr. Stan Wakely found many stems of *C. maculatum* on Dartford Marshes in 1965 which were tenanted by *Lozopera beatricella*. — Editor.]